

## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/035,978  
Source: OIPE  
Date Processed by STIC: 8/22/02

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

**FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.**

**FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.**

**PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER  
VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND  
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:**

**<http://www.uspto.gov/web/offices/pac/checker>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. **EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)**
2. **U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202**
3. **Hand Carry directly to:**  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
**Or**  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. **Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202**

Revised 01/29/2002



Does Not Comply  
Corrected Diskette Needed

OIPE

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/035,978

DATE: 08/22/2002 *See p. 6*  
TIME: 12:30:31

Input Set : A:\INNOG2.001C1.TXT  
Output Set: N:\CRF4\08222002\J035978.raw

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4 <110> APPLICANT: Quint, Wilhelmus
5      Van Doorn, Leendert
7 <120> TITLE OF INVENTION: PROBES, METHODS AND KITS FOR DETECTION
8      AND TYPING OF HELICOBACTER PYLORI NUCLEIC ACIDS IN
9      BIOLOGICAL SAMPLES
11 <130> FILE REFERENCE: INNOG2.001C1
13 <140> CURRENT APPLICATION NUMBER: 10/035,978
C--> 14 <141> CURRENT FILING DATE: 2002-08-16
16 <150> PRIOR APPLICATION NUMBER: 09/284,725
17 <151> PRIOR FILING DATE: 1999-04-16
19 <150> PRIOR APPLICATION NUMBER: EP 97870133.2
20 <151> PRIOR FILING DATE: 1997-09-09
22 <150> PRIOR APPLICATION NUMBER: EP 96870131.8
23 <151> PRIOR FILING DATE: 1996-10-16
25 <160> NUMBER OF SEQ ID NOS: 280
27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 20
31 <212> TYPE: DNA
32 <213> ORGANISM: Artificial Sequence
34 <220> FEATURE:
35 <223> OTHER INFORMATION: cagApro probe
37 <400> SEQUENCE: 1
38 gttgataacg ctgtcgcttc
40 <210> SEQ ID NO: 2
41 <211> LENGTH: 20
42 <212> TYPE: DNA
43 <213> ORGANISM: Artificial Sequence
45 <220> FEATURE:
46 <223> OTHER INFORMATION: P1S1 vacA-derived probe
48 <400> SEQUENCE: 2
49 ggagcrttgc tcagcatcac
51 <210> SEQ ID NO: 3
52 <211> LENGTH: 21
53 <212> TYPE: DNA
54 <213> ORGANISM: Artificial Sequence
56 <220> FEATURE:
57 <223> OTHER INFORMATION: P22S1a vacA-derived probe
59 <400> SEQUENCE: 3
60 gctttagtag gagcrttgc
62 <210> SEQ ID NO: 4
63 <211> LENGTH: 20
64 <212> TYPE: DNA

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20

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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/035,978

DATE: 08/22/2002  
TIME: 12:30:31

Input Set : A:\INNOG2.001C1.TXT  
Output Set: N:\CRF4\08222002\J035978.raw

65 <213> ORGANISM: Artificial Sequence  
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68 <223> OTHER INFORMATION: P1S1b vacA-derived probe  
70 <400> SEQUENCE: 4  
71 ggagcggtga tttagykccat 20  
73 <210> SEQ ID NO: 5  
74 <211> LENGTH: 19  
75 <212> TYPE: DNA  
76 <213> ORGANISM: Artificial Sequence  
78 <220> FEATURE:  
79 <223> OTHER INFORMATION: P2S1b vacA-derived probe  
81 <400> SEQUENCE: 5  
82 gtttttagcag gagcggtga 19  
84 <210> SEQ ID NO: 6  
85 <211> LENGTH: 20  
86 <212> TYPE: DNA  
87 <213> ORGANISM: Artificial Sequence  
89 <220> FEATURE:  
90 <223> OTHER INFORMATION: P1S2(VAS2) vacA-derived probe  
92 <400> SEQUENCE: 6  
93 gctaayacgc caaaygatcc 20  
95 <210> SEQ ID NO: 7  
96 <211> LENGTH: 20  
97 <212> TYPE: DNA  
98 <213> ORGANISM: Artificial Sequence  
100 <220> FEATURE:  
101 <223> OTHER INFORMATION: P2S2 vacA-derived probe  
103 <400> SEQUENCE: 7 20  
104 gatcccatac acagcgagag  
106 <210> SEQ ID NO: 8  
107 <211> LENGTH: 19  
108 <212> TYPE: DNA  
109 <213> ORGANISM: Artificial Sequence  
111 <220> FEATURE:  
112 <223> OTHER INFORMATION: P1M1 vacA-derived probe  
114 <400> SEQUENCE: 8  
115 ttgatacggg taatgggtgg 19  
117 <210> SEQ ID NO: 9  
118 <211> LENGTH: 20  
119 <212> TYPE: DNA  
120 <213> ORGANISM: Artificial Sequence  
122 <220> FEATURE:  
123 <223> OTHER INFORMATION: P2M1 vacA-derived probe  
125 <400> SEQUENCE: 9  
126 gggtaatggg gggttcaaca 20  
128 <210> SEQ ID NO: 10  
129 <211> LENGTH: 21  
130 <212> TYPE: DNA  
131 <213> ORGANISM: Artificial Sequence

RAW SEQUENCE LISTING  
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Input Set : A:\INNOG2.001C1.TXT  
Output Set: N:\CRF4\08222002\J035978.raw

133 <220> FEATURE:  
134 <223> OTHER INFORMATION: P1M2 vacA-derived probe  
136 <400> SEQUENCE: 10  
137 acgaatttaa gagtgaatgg c 21  
139 <210> SEQ ID NO: 11  
140 <211> LENGTH: 21  
141 <212> TYPE: DNA  
142 <213> ORGANISM: Artificial Sequence  
144 <220> FEATURE:  
145 <223> OTHER INFORMATION: P2M2 vacA-derived probe  
147 <400> SEQUENCE: 11 21  
148 agagcgataa cgggctaaac a  
150 <210> SEQ ID NO: 12  
151 <211> LENGTH: 24  
152 <212> TYPE: DNA  
153 <213> ORGANISM: Artificial Sequence  
155 <220> FEATURE:  
156 <223> OTHER INFORMATION: cagF primer  
158 <400> SEQUENCE: 12 24  
159 ttgaccaaca accacaaacc gaag  
161 <210> SEQ ID NO: 13  
162 <211> LENGTH: 22  
163 <212> TYPE: DNA  
164 <213> ORGANISM: Artificial Sequence  
166 <220> FEATURE:  
167 <223> OTHER INFORMATION: cagR primer  
169 <400> SEQUENCE: 13 22  
170 cttcccttaa ttgcgagatt cc  
172 <210> SEQ ID NO: 14  
173 <211> LENGTH: 20  
174 <212> TYPE: DNA  
175 <213> ORGANISM: Artificial Sequence  
177 <220> FEATURE:  
178 <223> OTHER INFORMATION: VA1XR primer  
180 <400> SEQUENCE: 14 20  
181 cctgaraccc ttcctacagc  
183 <210> SEQ ID NO: 15  
184 <211> LENGTH: 20  
185 <212> TYPE: DNA  
186 <213> ORGANISM: Artificial Sequence  
188 <220> FEATURE:  
189 <223> OTHER INFORMATION: M1F primer  
191 <400> SEQUENCE: 15  
192 gtggatgcyc atacrgctwa 20  
194 <210> SEQ ID NO: 16  
195 <211> LENGTH: 20  
196 <212> TYPE: DNA  
197 <213> ORGANISM: Artificial Sequence  
199 <220> FEATURE:

RAW SEQUENCE LISTING  
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Input Set : A:\INNOG2.001C1.TXT  
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200 <223> OTHER INFORMATION: M1R primer  
202 <400> SEQUENCE: 16  
203 rtgagcttgt tgatattgac 20  
205 <210> SEQ ID NO: 17  
206 <211> LENGTH: 21  
207 <212> TYPE: DNA  
208 <213> ORGANISM: Artificial Sequence  
210 <220> FEATURE:  
211 <223> OTHER INFORMATION: HPMGF primer  
213 <400> SEQUENCE: 17  
214 cacagccact ttcaataacg a 21  
216 <210> SEQ ID NO: 18  
217 <211> LENGTH: 20  
218 <212> TYPE: DNA  
219 <213> ORGANISM: Artificial Sequence  
221 <220> FEATURE:  
222 <223> OTHER INFORMATION: HPMGR primer  
224 <400> SEQUENCE: 18 20  
225 cgtcaaaaata attccaaggg  
227 <210> SEQ ID NO: 19  
228 <211> LENGTH: 19  
229 <212> TYPE: DNA  
230 <213> ORGANISM: Artificial Sequence  
232 <220> FEATURE:  
233 <223> OTHER INFORMATION: cagSF primer  
235 <400> SEQUENCE: 19 19  
236 caacaaccac aaaccgaag  
238 <210> SEQ ID NO: 20  
239 <211> LENGTH: 21  
240 <212> TYPE: DNA  
241 <213> ORGANISM: Artificial Sequence  
243 <220> FEATURE:  
244 <223> OTHER INFORMATION: cagSR primer  
246 <400> SEQUENCE: 20  
247 gattgggttt tgatcaggat c 21  
249 <210> SEQ ID NO: 21  
250 <211> LENGTH: 20  
251 <212> TYPE: DNA  
252 <213> ORGANISM: Artificial Sequence  
254 <220> FEATURE:  
255 <223> OTHER INFORMATION: cagFN1 primer  
257 <400> SEQUENCE: 21  
258 gataagaayg atagggataa 20  
260 <210> SEQ ID NO: 22  
261 <211> LENGTH: 18  
262 <212> TYPE: DNA  
263 <213> ORGANISM: Artificial Sequence  
265 <220> FEATURE:  
266 <223> OTHER INFORMATION: cagRN1 primer

RAW SEQUENCE LISTING  
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DATE: 08/22/2002  
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Input Set : A:\INNOG2.001C1.TXT  
Output Set: N:\CRF4\08222002\J035978.raw

268 <400> SEQUENCE: 22	18
269 aatactgatt ctttttgg	
271 <210> SEQ ID NO: 23	
272 <211> LENGTH: 20	
273 <212> TYPE: DNA	
274 <213> ORGANISM: Artificial Sequence	
276 <220> FEATURE:	
277 <223> OTHER INFORMATION: VAMSFB primer	
279 <400> SEQUENCE: 23	20
280 gtggatgccc atacggctaa	
282 <210> SEQ ID NO: 24	
283 <211> LENGTH: 20	
284 <212> TYPE: DNA	
285 <213> ORGANISM: Artificial Sequence	
287 <220> FEATURE:	
288 <223> OTHER INFORMATION: VAMSFC primer	
290 <400> SEQUENCE: 24	20
291 gtggatgctc atacagctwa	
293 <210> SEQ ID NO: 25	
294 <211> LENGTH: 20	
295 <212> TYPE: DNA	
296 <213> ORGANISM: Artificial Sequence	
298 <220> FEATURE:	
299 <223> OTHER INFORMATION: VAMSFd primer	
301 <400> SEQUENCE: 25	20
302 gtggatgccc atacgatcaa	
304 <210> SEQ ID NO: 26	
305 <211> LENGTH: 20	
306 <212> TYPE: DNA	
307 <213> ORGANISM: Artificial Sequence	
309 <220> FEATURE:	
310 <223> OTHER INFORMATION: VAMSFe primer	
312 <400> SEQUENCE: 26	20
313 gcgagcgctc atacggtcaa	
315 <210> SEQ ID NO: 27	
316 <211> LENGTH: 20	
317 <212> TYPE: DNA	
318 <213> ORGANISM: Artificial Sequence	
320 <220> FEATURE:	
321 <223> OTHER INFORMATION: cagprobe3 cagA-derived probe	
323 <400> SEQUENCE: 27	20
324 ggatttttga tcgcattttt	
326 <210> SEQ ID NO: 28	
327 <211> LENGTH: 20	
328 <212> TYPE: DNA	
329 <213> ORGANISM: Artificial Sequence	
331 <220> FEATURE:	
332 <223> OTHER INFORMATION: P3S1 vacA-derived probe	
334 <400> SEQUENCE: 28	

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/035,978

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Input Set : A:\INNOG2.001C1.TXT  
Output Set: N:\CRF4\08222002\J035978.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:41; N Pos. 10,30,37,58,85,112  
Seq#:53; N Pos. 87,106,107,108,109  
Seq#:55; N Pos. 87,143,165  
Seq#:56; N Pos. 26,27,82  
Seq#:59; N Pos. 27,34,53,55,76,82,160  
Seq#:63; N Pos. 143,165  
Seq#:154; N Pos. 27,34,53,55,76,82  
Seq#:169; N Pos. 82  
Seq#:175; N Pos. 26,27  
Seq#:176; N Pos. 82,101,102,103,104  
Seq#:186; N Pos. 7,27,34,55,82

Use of <220> Feature(NEW RULES):

Sequence(s) are missing the <220> Feature and associated headings.  
Use of <220> to <223> is MANDATORY if <213> ORGANISM is "Artificial Sequence" or "Unknown". Please explain source of genetic material in <220> to <223> section (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp.29631-32)  
(Sec.1.823 of new Rules)

Seq#:41,53,55,56,59,63,154,169,175,176,186,279

VERIFICATION SUMMARY  
PATENT APPLICATION: US/10/035,978

DATE: 08/22/2002  
TIME: 12:30:32

Input Set : A:\INNOG2.001C1.TXT  
Output Set: N:\CRF4\08222002\J035978.raw

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:480 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:484 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:41  
L:485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0  
L:486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:60  
L:650 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:654 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:53  
L:656 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:60  
L:681 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:685 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:55  
L:687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:60  
L:688 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:120  
L:699 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:703 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:56  
L:704 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0  
L:705 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:60  
L:745 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:749 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:59  
L:750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0  
L:751 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:60  
L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:120  
L:805 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:809 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:63  
L:812 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:120  
L:2153 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2157 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:154  
L:2158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154 after pos.:0  
L:2159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154 after pos.:60  
L:2337 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2341 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:169  
L:2343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:169 after pos.:60  
L:2413 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2417 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:175  
L:2418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:175 after pos.:0  
L:2429 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2433 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:176  
L:2435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176 after pos.:60  
L:2553 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2557 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:186  
L:2558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:186 after pos.:0  
L:2559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:186 after pos.:60  
L:3997 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:279  
L:3999 M:258 W: Mandatory Feature missing, <220> FEATURE:  
L:3999 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION: